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TITLE THE IMPACT OF HEAD START: AN EVALUATION OF THE EFFECTS OF HEAD START ON CHILDREN'S COGNITIVE AND AFFECTIVE DEVELOPMENT. (EXECUTIVE SUMMARY).

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NOTE 12P.; A FULL REPORT OF THIS STUDY IS AVAILABLE IN TWO VOLUMES. VOLUME I CONTAINS A FULL REPORT ON THE STUDY PLUS SOME OF THE TECHNICAL APPENDIXES. VOLUME II CONTAINS THE REMAINING APPENDIXES

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ABSTRACT

THE WESTINGHOUSE LEARNING CORPORATION AND OHIO UNIVERSITY CARRIED OUT A STUDY ON THE IMPACT OF HEAD START FOR THE OFFICE OF ECONOMIC OPPORTUNITY. THE MAIN INQUIRY OF THE STUDY CONCERNED THE DIFFERENCE BETWEEN HEAD START FIRST, SECOND, AND THIRD GRADERS AND NON-HEAD START FIRST, SECOND, AND THIRD GRADERS IN INTELLECTUAL AND SOCIAL-PERSONAL DEVELOPMENT. DATA WERE COLLECTED FROM TESTS, INTERVIEWS, AND QUESTIONNAIRES OF STUDENTS, PARENTS, AND TEACHERS FROM 104 HEAD START CENTERS ACROSS THE COUNTRY, AND CONTROL AREAS. THE MAJOR CONCLUSIONS DRAWN FROM THESE DATA WERE: (1) SUMMER PROGRAMS ARE INEFFECTIVE IN PRODUCING LASTING GAINS IN AFFECTIVE AND COGNITIVE DEVELOPMENT, (2) FULL-YEAR PROGRAMS ARE INEFFECTIVE IN AIDING AFFECTIVE DEVELOPMENT AND ONLY marginally effective in PRODUCING LASTING COGNITIVE GAINS, (3) ALL HEAD START CHILDREN ARE STILL CONSIDERABLY BELOW NATIONAL NORMS ON TESTS OF LANGUAGE DEVELOPMENT AND SCHOLASTIC ACHIEVEMENT, WHILE SCHOOL READINESS AT GRADE ONE APPROACHES THE NATIONAL NORM, AND (4) PARENTS OF HEAD START CHILDREN VOICED STRONG APPROVAL OF THE PROGRAM. THUS, WHILE FULL-YEAR HEAD START IS SOMEWHAT SUPERIOR TO SUMMER HEAD START, NEITHER COULD BE DESCRIBED AS SATISFACTORY. FURTHER RESEARCH AIMED AT THE DEVELOPMENT OF AN EFFECTIVE PRESCHOOL PROGRAM IS RECOMMENDED. (MH)

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THE IMPACT OF HEAD START

An Evaluation of the Effects of Head Start
On Children's Cognitive and Affective Development

WESTINGHOUSE LEARNING CORPORATION--OHIO UNIVERSITY

JUNE, 1969

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EXECUTIVE SUMMARY

This report presents the results of a study on the impact of Head Start carried out for the Office of Economic Opportunity from June 1968 through May 1969 by Westinghouse Learning Corporation and Ohio University.

The study attempted in a relatively short period of time to provide an answer to a limited question concerning Head Start's impact; namely: Taking the program as a whole as it has operated to date, to what degree has it had psychological and intellectual impact on children that has persisted into the primary grades ?

The very real limitation of our study should be established at once. The study did not address the question of Head Start's medical or nutritional impact. It did not measure the effect of Head Start on the stability of family life. It did not assess the impact of Head Start on the total community, on the schools, or on the morale and attitudes of the children while they were in the program. The study is therefore a limited and partial evaluation, but one based on solid, useful, and responsible research.

We were not asked to answer all the questions that might have been asked. Those that we did ask (and answer), however,

were the right questions to ask first. This is an ex post facto study; we therefore did not have the opportunity to observe the Head Start classrooms whose output we measured, nor could we attempt to ascertain various kinds of secondary social or mental health benefits.

The basic question posed by the study was:

To what extent are the children now in the first, second, and third grades who attended Head Start programs different in their intellectual and social-personal development from comparable children who did not attend?

To answer this question, a sample of one hundred and four Head Start centers across the country was chosen. A sample of children from these centers who had gone on to the first, second, and third grades in local area schools and a matched sample of control children from the same grades and schools who had not attended Head Start were administered a series of tests covering various aspects of cognitive and affective development (listed below). The parents of both the former Head Start enrollees and the control children were interviewed and a broad range of attitudinal, social, and economic data was collected. Directors or other officials of all the centers were interviewed and information was collected on various characteristics of the current local Head Start programs. The primary grade teachers rated both groups of children on achievement motivation and supplied a description of the intellectual and emotional environment of their elementary schools.

Analyses of comparative performances on the assessment measures of all children in the study were conducted for each selected center area. Findings were combined, then, into the total national sample (called the overall analysis) and into three major subgroupings of centers formerly attended by the Head Start children, the latter being classified by geographic region, city size, and racial/ethnic composition. All the findings were also related to the type of program attended, i. e., summer or full-year program.

The major findings of the study are:

1. In the overall analysis for the Metropolitan Readiness Tests (MRT), a generalized measure of learning readiness containing subtests on word meaning, listening, matching, alphabet, numbers, and copying, the Head Start children who had attended full-year programs and who were beginning grade one were superior to the controls by a small but statistically significant margin on both "Total Readiness" and the "Listening" subscore. However, the Head Start children who had attended summer programs did not score significantly higher than the controls. (This particular cognitive measure was used in grade one because it does not require the ability to read.)
2. In the overall analysis for the Stanford Achievement Test (SAT), a general measure of children's academic achievement, containing sub-

tests on word reading, paragraph meaning, spelling, arithmetic, and so on, used to measure achievement at grades two and three, the Head Start children from both the summer and the full-year programs did not score significantly higher than the controls at the grade two level. While the children from the summer programs failed to score higher than the controls at grade three, an adequate evaluation of the effect of the full-year program at this grade level was limited by the small number of programs.

3. In the overall analysis for the Illinois Test of Psycholinguistic Abilities (ITPA), a measure of language development containing separate tests on auditory and vocal reception, auditory and visual memory, auditory-vocal association, visual-motor association, etc., the Head Start children did not score significantly higher than the controls at any of the three grade levels for the summer programs. In the case of the full-year programs, two isolated differences in favor of Head Start were found at grade two for two subtests of the ITPA, namely, "Visual Sequential Memory" and "Manual Expression."
4. In the overall analysis for the Children's Self-Concept Index (CSCI), a projective measure of the degree to which the child has a positive

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self-concept, the Head Start children from both the summer and the full-year programs did not score significantly higher than the controls at any of the three grade levels.

5. In the overall analysis for the Classroom Behavior Inventory (CBI), a teacher rating assessment of the children's desire for achievement in school, the Head Start children from both the summer and the full-year programs did not score significantly higher than the controls at any of the three grade levels.
6. In the overall analysis for the Children's Attitudinal Range Indicator (CARI), a picture-story projective measure of the child's attitudes toward school, home, peers, and society, the Head Start children from the full-year programs did not score significantly higher than the controls at any of the three grade levels. One isolated positive difference for summer programs was found on the "Home" attitude subtest at grade one.
7. The above findings pertain to the total national sample. As mentioned previously, additional analyses were made for three subgroups of the national sample: geographic regions, city-size groups, and racial/ethnic composition categories. Analysis of the summer programs by subgroups revealed few differences where Head Start children scored higher than their controls. Analysis

of the full-year programs by the same sub-
groupings revealed a number of statistically
significant differences in which, on some meas-
ures (mostly subtests of cognitive measures)
and at one or another grade level, the Head
Start children scored higher than their con-
trols. There were consistent favorable pat-
terns for certain subgroups: where centers were
in the Southeastern geographic region, in core
cities, or of mainly Negro composition. Even
though the magnitudes of most of these differ-
ences were small, they were statistically sig-
nificant and indicated that the program evidently
had had some limited effect with children who had
attended one or another of these types of full-year
centers.

8. Apart from any comparison with control groups,
the scores of Head Start children on cognitive
measures fall consistently below the national norms
of standardized tests. While the former Head Start
enrollees approach the national level on school
readiness (measured by the MRT at first grade),
their relative standing is considerably less favor-
able for the tests of language development and
scholastic achievement. On the SAT they trail
about six-tenths of a year at second grade and close
to a full year at grade three. They lag from seven
to nine months and eight to eleven months respec-
tively on the ITPA at first and second grades.

9. Parents of Head Start children expressed strong approval of the program and its effect on their children. They reported substantial participation in the activities of the centers. Parents of full-year enrollees tended to be slightly better educated but with a slightly lower income than parents of summer enrollees; summer programs enrolled a larger proportion of white children.

Viewed in broad perspective, the major conclusions of the study are:

1. Summer programs appear to be ineffective in producing any gains in cognitive and affective development that persist into the early elementary grades.
2. Full-year programs appear to be ineffective as measured by the tests of affective development used in the study, but are marginally effective in producing gains in cognitive development that could be detected in grades one, two, and three. Programs appeared to be of greater effectiveness for certain subgroups of centers, notably in mainly Negro centers, in scattered programs in the central cities, and in Southeastern centers.
3. Head Start children, whether from summer or from full-year programs, still appear to be considerably below national norms for the standardized tests of language development and scholastic achievement, while performance on school readiness at grade one approaches the national norm.

4. Parents of Head Start enrollees voiced strong approval of the program and its influence on their children. They reported substantial participation in the activities of the centers.

An analysis of covariance random replications model was used for the main analysis of the data obtained in this study. This statistical procedure was cross-checked by both a non-parametric analysis (with appropriate matchings) and an analysis of covariance with individuals rather than centers as the basic unit. Overall results with all procedures were similar.

In sum, the Head Start children can not be said to be appreciably different from their peers in the elementary grades who did not attend Head Start in most aspects of cognitive and affective development measured in this study, with the exception of the slight but nonetheless significant superiority of full-year Head Start children on certain measures of cognitive development.

A variety of interpretations of the data are possible. Our measures were taken after children had been out of Head Start from one to three years, in order to detect persisting effects. It is conceivable that the program does have a significant impact on the children but that the effect is matched by other experiences, that it is contravened by the generally impoverished environment to which the disadvantaged child returns after he leaves the Head Start program, or that it is an intellectual spurt that the first grade itself produces in the non-Head Start child. Or it is possible that the Head Start program has a significant impact on the children who attended, but that the

presence of these improved children in the classroom has raised the level of the whole class to the point where there are no longer statistically reliable differences between the Head Start and non-Head Start children. A further possibility exists that Head Start has been of considerable impact where adequately implemented, but lack of more positive findings reflects poor implementation of the program. Or it is possible that Head Start has been effective only with certain types of pupils, and so on.

In any case, the study indicates that Head Start as it is presently constituted has not provided widespread significant cognitive and affective gains which are supported, reinforced, or maintained in conventional education programs in the primary grades. However, in view of the mixed results from the full-year findings, the impact on the parents, the obvious values of the medical and nutritional aspects of the program, and the critical need for remediating the effects of poverty on disadvantaged children, we make the following recommendations:

1. Summer programs should be phased out as early as feasible and converted into full-year or extended-year programs.
2. Full-year programs should be continued, but every effort should be made to make them more effective. Some specific suggestions are:
 - a. Making them a part of an intervention strategy of longer duration, perhaps extending downward toward infancy and upward into the primary grades.

- b. Varying teaching strategies with the characteristics of the children.
 - c. Concentrating on the remediation of specific deficiencies as suggested by the study, e. g. , language deficiencies, deficiencies in spelling or arithmetic.
 - d. Training of parents to become more effective teachers of their children.
3. In view of the limited state of knowledge about what would constitute a more effective program, some of the full-year programs should be set up as experimental programs (strategically placed on a regional basis), to permit the implementation of new procedures and techniques and provide for an adequate assessment of results. Innovations which prove to be successful could then be instituted on a large scale within the structure of present full-year programs. Within the experimental context, such innovations as longer period of intervention or total family intervention might be tried.
4. Regardless of where and how it is articulated into the structure of the federal government, the agency attempting the dual research and teaching missions presently assigned Head Start should be granted the focal identity and organizational unity necessary to such complex and critical experimental programs. Their basis of funding should take cognizance of both the social significance of these

missions and the present state-of-the-art of programs attempting to carry them out.

In conclusion, although this study indicates that full-year Head Start appears to be a more effective compensatory educational program than summer Head Start, its benefits cannot be described as satisfactory. Therefore we strongly recommend that large-scale efforts and substantial resources continue to be devoted to the search for finding more effective programs, procedures, and techniques for remediating the effects of poverty on disadvantaged children.